

Remarks

This Application has been carefully reviewed in light of the Office Action mailed September 12, 2007. Applicants appreciate the Examiner's consideration of the Application. Although Applicants believe all claims are allowable without amendment, to advance prosecution Applicants have made clarifying amendments to Claims 7-12. Applicants have also canceled Claims 13-15 without prejudice or disclaimer. Applicants respectfully request reconsideration and allowance of all pending claims.

I. Claims 7-12 are Definite

The Examiner rejects Claims 7-12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, the Examiner rejects these claims based on the decision of the United States Court of Appeals for the Federal Circuit in *IPXL Holdings v. Amazon.com, Inc.*, 430 F.3d 1377, 1384, 77 U.S.P.Q.2d 1140, 1145 (Fed. Cir. 2005), stating that the rejected claims recite both a device, or system, and a method. (*See* Office Action at 1-2)

Although Applicants do not necessarily agree with the Examiner's statements, to advance prosecution Applicants have made the following amendments to Claims 7-12.

- Claim 7, which is directed to a program storage device, has been amended to be in independent form, the program storage device being readable by a machine and tangibly embodying a program of instructions executable by the machine, the program instructions when executed by the machine operable to perform the limitations recited in the body of the claim.
- Claim 8, which is directed to a program storage device, has been amended to be in independent form, the program storage device being readable by a machine and tangibly embodying a program of instructions executable by the machine, the program instructions when executed by the machine operable to perform the limitations recited in the body of the claim.
- Claim 9, which is directed to a program storage device, has been amended to be in independent form, the program storage device being readable by a machine and tangibly embodying a program of instructions executable by the machine, the program instructions when executed by the machine operable to perform the limitations recited in the body of the claim.

- Claim 10, which is directed to a computer system, has been amended to be in independent form, the computer system comprising a program storage device readable by the computer system and tangibly embodying a program of instructions, the computer system also comprising a processor operable to execute the program of instructions to perform the limitations recited in the body of the claim.
- Claim 11, which is directed to a computer system, has been amended to be in independent form, the computer system comprising a program storage device readable by the computer system and tangibly embodying a program of instructions, the computer system also comprising a processor operable to execute the program of instructions to perform the limitations recited in the body of the claim.
- Claim 12, which is directed to a computer system, has been amended to be in independent form, the computer system comprising a program storage device readable by the computer system and tangibly embodying a program of instructions, the computer system also comprising a processor operable to execute the program of instructions to perform the limitations recited in the body of the claim.

Applicants submit that none of amended Claims 7-12 is directed to both an apparatus (or system) and method, and that these claims are definite.

For at least these reasons, Applicants respectfully submit that Claims 7-12 are definite in compliance with 35 U.S.C. § 112, second paragraph, and respectfully request reconsideration and allowance of these claims.

II. Claims 1-15 Recite Patentable Subject Matter

The Examiner rejects Claims 1-15 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Patentable subject matter is “any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereto.” *See* 35 U.S.C. § 101. When an abstract idea is reduced to a practical application, the abstract idea no longer stands alone if the practical application of the abstract idea produces a useful, concrete, and tangible result. This then satisfies the requirements of 35 U.S.C. § 101. *See In re Alappat*, 33 F.3d 1526, 1544, 31 U.S.P.Q.2d 1545, 1557 (Fed. Cir. 1994); *see also State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 U.S.P.Q.2d 1596, 1601-02

(Fed. Cir. 1998). While an abstract idea by itself may not satisfy the requirements of 35 U.S.C. § 101, an abstract idea when practically applied to produce a useful, concrete, and tangible result satisfies 35 U.S.C. § 101. *See AT&T Corp. v. Excel Comm. Inc.*, 172 F.3d 1352, 1357, 50 U.S.P.Q. 1447, 1452 (Fed. Cir. 1999) (stating that as technology progressed, the CCPA overturned some of the earlier limiting principles regarding 35 U.S.C. § 101 and announced more expansive principles formulated with computer technology in mind); *see also In re Musgrave*, 431 F.2d 882, 167 U.S.P.Q. 280 (CCPA 1970) (cited by the Federal Circuit in *AT&T Corp.*, 172 F.3d at 1356). Thus, producing a useful, concrete, and tangible result is the key to patentability according to *State Street* and other applicable case law.

As stated by the Federal Circuit in *State Street*, “[T]ransformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces ‘a useful, concrete, and tangible result’ -- a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.” *State Street*, 149 F.3d at 1373, 47 U.S.P.Q.2d at 1601-02. Each of Applicants’ claims recites a useful, concrete, and tangible result, which is all the law requires for a claim to be directed to statutory subject matter, and is therefore directed to patentable subject matter.

Claim 1, which Applicants discuss as an example, is directed to a “an adaptive system modeling method” that comprises:

- selecting from a plurality of candidate features of a system a set of input features and a superset of the input features and other features by using a baseline significance signature;
- generating a system model by using data corresponding to the selected input features set;
- maintaining online data corresponding to the superset of the input features and other features collected from the system;
- determining a new significance signature of the system by using the online superset data to perform a discriminant analysis of the candidate features; and
- detecting an evolutionary change in the system by comparing the new significance signature and the baseline significance signature.

Claim 1 is not merely a manipulation of an abstract idea. Instead, Claim 1 clearly recites a useful, concrete, and tangible result, which is all the law requires for a claim to be directed to statutory subject matter, and is therefore directed to patentable subject matter.

In particular, “detecting an evolutionary change in the system by comparing the new significance signature and the baseline significance signature” is one practical application of independent Claim 1, the useful, concrete, and tangible result being the detection of the evolutionary change in the system by comparing the new significance signature and the baseline significance signature.

Respectfully, it appears to Applicants that the Examiner’s statements regarding the alleged “abstractness” of Applicants’ claims relate to the breadth of the claims rather than the guidelines for patentable subject matter. (*See* Office Action at 3) The fact that Applicants’ claims may be broad (an issue on which Applicants do not take a position at this time) does not necessarily mean that Applicants’ claims are directed to non-statutory subject matter.

The Examiner apparently also rejects Claims 13-15 under 35 U.S.C. § 101 on separate, independent grounds. (Office Action at 3, ¶3.3) Although Applicants do not necessarily agree with the Examiner’s rejections or the statements made by the Examiner, to advance prosecution, Applicants have canceled Claims 13-15 without prejudice or disclaimer.

The Examiner apparently also rejects Claims 7-12 under 35 U.S.C. § 101 on separate, independent grounds that derive their basis from the above-discussed rejection of these claims under 35 U.S.C. § 112, second paragraph. (Office Action at 3, ¶3.4) Applicants respectfully request that these rejections be withdrawn for at least those reasons discussed above with respect to the rejections under 35 U.S.C. § 112, second paragraph.

For at least these reasons, Applicants respectfully submit that Claims 1-15 recite patentable subject matter in compliance with 35 U.S.C. § 101 and respectfully request reconsideration and allowance of these claims.

III. Allowed Claims

Applicants appreciate the Examiner's indication that Claims 1-15 are deemed allowable over the prior art of record at this time, pending resolution of any rejections noted above. Applicants respectfully issue a statement commenting on the Examiner's statement of reasons for allowance of Claims 1-15 pursuant to 37 C.F.R. § 1.104. Applicants respectfully disagree with the Examiner's reasons for allowance to the extent that they are inconsistent with applicable case law, statutes, and regulations. Furthermore, Applicants do not admit to any characterization or limitation of the claims by the Examiner, particularly any that are inconsistent with the language of the claims considered in their entirety and including all of their constituent limitations, or to any characterization of a reference by the Examiner.

IV. No Waiver

All of Applicants' arguments and amendments are without prejudice or disclaimer. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner's additional statements.

Conclusion

Applicants have made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicants respectfully request full allowance of all pending claims.

If the Examiner feels that a telephone conference would advance prosecution of this application in any manner, the Examiner is invited to contact Chad D Terrell, Attorney for Applicants, at the Examiner's convenience at (214) 953-6813.

The Commissioner is hereby authorized to the amount of \$1260.00 to Deposit Account No. 02-0384 of Baker Botts, L.L.P. to cover the cost of six new independent claims over three. Although Applicants believe no other fees are due, the Commissioner is hereby authorized to charge any necessary additional fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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